(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 12 January 2006 (12.01.2006)

(10) International Publication Number WO 2006/004271 A1

(51) International Patent Classification7:

H01L 33/00

(21) International Application Number:

PCT/KR2005/000895

(22) International Filing Date: 25 March 2005 (25.03.2005)

(25) Filing Language:

Korean

(26) Publication Language:

English

(30) Priority Data: 10-2004-0020270 25

25 March 2004 (25.03.2004) KR

- (71) Applicant (for all designated States except US): LUX-ELLENT CO., LTD. [KR/KR]; 400, Sangdaewon-dong, Jungwon-gu, Seongnam-si, Kyunggi-do 462-120 (KR).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): YOO, Tae Kyung [KR/KR]; 115-603, Samsung Raemian Apt., 629, Mabuk-ri, Kuseong-eup, Yongin-si, Kyunggi-do 449-557 (KR). PARK, Eun Hyun [KR/KR]; 802-405, Daechang Villa, Jungtap-dong, Bundang-gu, Seongnam-si, Kyunggi-do 463-835 (KR).
- (74) Agent: AN, Sang Jeong; 512-1906, 221, Gumi-dong, Bundang-gu, Seongnam-si, Kyunggi-do 463-715 (KR).

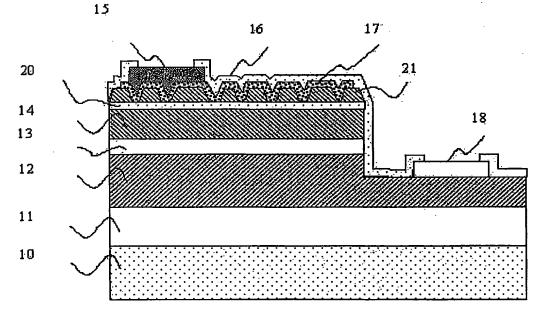
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: III-NITRIDE COMPOUND EMICONDUCTOR LIGHT EMITTING DEVICE



(57) Abstract: The present invention relates a III-nitride compound semiconductor light emitting device in which a first layer composed of a carbon-containing compound layer, such as an n-type or p-type silicon carbide (SiC), silicon carbon nitride (SiCN) or carbon nitride layer (CN) layer, is formed on the p-type III-nitride semiconductor layer of the existing III-nitride semiconductor light emitting device, and a second layer composed of a III-nitride semiconductor layer with a given thickness is formed on the first layer.